STATEMENT

Main Tasks and Achievements of the Antarctica Expeditions During the Last Three Years

1. METEOROLOGY

The meteorological phenomena on Antarctica was studied in the context of Indian monsoons. The usual meteorological parameters like wind, wind speed, pressure, temperature etc. were continually recorded to support both scientific and logistic activities in Antarctica.

2. ATMOSPHERIC SCIENCES

In this area study of the ozone layer and green house effects besides the study of trace gases and their influence on ozone chemistry were undertaken. The measurement of radio activity in the higher atmosphere,m lithosphere and atmosphere and transport of substances like radon were also carried out.

3. EARTH SCIENCES

Scientific studies were carried out to understand the structure of Antarctic geology, the various formation and mineralisation processes, and paleo environmental changes. Survey of the entire Schirmacher and Wilhthat regions have been completed and a geological map prepared. Several rock samples have been collected for laboratory analysis. Besides, iceberg monitoring, glaciological investigation and search for meteorites were continued.

4. BIOLOGICAL SCIENCES

The study of micro plants under extreme conditions were undertaken. These studies included bio-chemical, molecular and related experiments on primitive forms of life and their adaptation to extreme cold conditions.

The oceanographic studies on air-sea interaction, oceanic currents and circulation patterns and their influence on monsoon systems were carried out.

5. ENVIRONMENTAL PHYSIOLOGY

Studies on the human metabolic and psychological behaviour in cold and isolated conditions were undertaken.

6. ENGINEERING ASPECTS

An indigenous station "Maitri" has been constructed in Antarctica with all necessary facilities for scientific studies. The engineering materials and other related aspects are continually studies and improved every year.

The station has effective waste management systems in conformity with international regulations.

[*English*]

Housing Projects of Kerala

5674. SHRI THAYIL JOHN ANJALOSE: Will the Minister of URBAN DEVELOPMENT be pleased to state:

(a) the project under consideration of HUDCO for solving the housing problem in the rural and urban areas for Kerala;

(b) whether HUDCO has accorded its approval; and

(c) if so, the details thereof and if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF URBAN DEVELOPMENT (SHRI M. ARUNACHALAM): (a) to (c). During the current financial year, HUDCO has

already sanctioned loan of Rs. 69.74 crores to Kerala Agencies as on 29.2.92. In addition Government of Kerala has sought assistance of HUDCO for the construction of 10 lakhs houses in rural and urban areas of the State, envisaging loan assistance of Rs. 303 crores each year. Since resources of this magnitude are not available with HUDCO, it has requested State Government to undertake to borrow from HUDCO funds mobilised by it at market rates in the immediate future. Formal agreement in this matter has not been reached.

Open Cast Mining by ECL

5675. SHRI ANIL BASU: Will the Minister of COAL be pleased to state:

(a) whether the Government of West Bengal objected to he open cast mining by Eastern Coalfields Limited at Gangaramchak in Birbhum District in West Bengal;

(b) if so, the details thereof;

(c) whether any enquiry has been conducted in this regard;

(d) if so, the details of the enquiry and the steps taken in this regard; and

(e) if not, the reasons therefor?

THE DEPUTY MINISTER IN THE MINISTRY OF COAL (SHRI S. B. NYAMAGOUDA): (a) to (e). Irrigation Department, Government of West Bengal has raised objection to opencast mining at Gangaramchak on the apprehension to damage to Hinglow dam due to blasting vibration as well as damage to the canal and inspection path. ECL management had maintained that there is no cause for apprehending damage to the irrigation system due to opencast mining at Gangaramchak. The silting of the canal was normal and the alleged obstruction of canal was caused by villagers. The damage to the inspection path marginal. ECL has maintained that blasting vibration were not as heavy as to cause any damage to Hinglow dam. Because of the difference of opinion between ECL management and the Irrigation Department regarding apprehension of damage, District Magistrate, Birbhum had convened a meeting in August, 1989 at Kasta. During the meeting ECL management offered to undertake minor repair of the service road of the canal as the use of the service road by ECL was limited and coal trucks were no longer plying over the dam proper. It was also agreed that the question of likely damage to the dam due to vibration arising out of blasting would be referred to Central Mining Research Station (CMRS). Accordingly the matter was refereed to CMRS for investigation. CMRS report confirmed that vibration due to blasting in Gangaramchak would not cause damage to the Hinglow dam in as much as particle velocities were below the permissible limit. Subsequently damage to service road has since been repaired by ECL and they have also undertaken to repair damage to a culvert for which work order has been issued.

In April, 1990 reference was received from Government of West Bengal expressing apprehension about adverse effects mentioned above due to coal mining at Gangaramchak. Based on the above facts, in July, 1990 the Government of West Bengal were informed that there should be no cause for concern about apprehended damage to dam /canal and other associated works arising from opencast mining operations.

Raniganj Coalfields

5676. SHRI ANIL BASU: Will the Minister of COAL be pleased to state:

(a) whether the Government have received any Preliminary Status Report on